

wherein said roughened surface is coated with a coating layer comprising at least one thermosetting resin, which is selected from the group consisting of polyimide resin, polyamide-imide resin, epoxy resin and phenol resin, and which contains from 55 to 95% by weight of MoS_2 , and wherein said roughened surface is formed of grooves extending in the sliding direction;

wherein Ag and Sn are solid-dissolved in the Cu matrix of the copper alloy in at least the vicinity of said roughened surface, where essentially no secondary phase of either Ag or Sn or both is formed;

and,

wherein at least a portion of said sublayer contains one of:

solid-dissolved Ag and Sn,

a hexagonal compound of solid-dissolved Ag and Sn,

a hexagonal compound of Cu and solid-dissolved Ag and Sn,

a eutectic of solid-dissolved Ag and Sn, or

a eutectic of Cu and solid-dissolved Ag and Sn;

in higher total atomic concentration of Ag and Sn than that of said layer nearest said backing metal.

2. (Twice Amended, replaces old claim 2) A sliding bearing for supporting an opposing shaft movable in a sliding direction against said sliding bearing, said sliding bearing comprising:

a copper alloy containing from 0.1 to 2% by weight of Ag, from 1 to 10% by weight of Sn, and 10% by weight or less of at least one additive element selected from the group consisting of Sb,

In, Al, Mg and Cd, the balance of the alloy consisting essentially of Cu, said alloy bonded to a backing metal and having on its side opposite to the backing metal a roughened surface of approximately 0.5 to approximately 10 μm of roughness (Rz);

said alloy having defined a layer parallel to and adjacent to said backing metal, and a sublayer that is not directly adjacent to said backing metal;

wherein said roughened surface is coated with a coating layer comprising at least one thermosetting resin, which is selected from the group consisting of polyimide resin, polyamide-imide resin, epoxy resin and phenol resin, and which contains from 55 to 95% by weight of MoS_2 , and wherein said roughened surface is formed of grooves extending in the sliding direction;

wherein said Ag and Sn and said at least one additive element are solid-dissolved in the Cu matrix of the copper alloy in at least the vicinity of said roughened surface where essentially no secondary phase of Ag or Sn or said additive element, or a secondary phase of any combination of these, is formed;

and

wherein at least a portion of said sublayer contains:

solid-dissolved Ag and Sn and said additive element,

a hexagonal compound of solid-dissolved Ag and Sn and said additive element,

a hexagonal compound of solid-dissolved Cu and Ag and Sn and said additive element,

a eutectic of solid-dissolved Ag and Sn and said additive element, or

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a eutectic of Cu and solid-dissolved Ag and Sn and said additive element; in higher total atomic concentration of Ag and Sn and said additive element than that of said layer nearest said backing metal.

Ch 100
4. (Twice Amended) A sliding bearing according to claim 1, wherein said roughened surface is formed by shot-blasting, etching, flame-spraying or chemical treatment.

Sub 100
5. (Twice Amended) A sliding bearing according to claim 1, wherein said roughened surface is formed by shot-blasting, etching, flame-spraying or chemical treatment of a surface of grooves extending in the sliding direction.

6. (Twice Amended) A sliding bearing according to claim 1, wherein the average particle diameter of said MoS_2 is 15 μm or less.

7. (Twice Amended) A sliding bearing according to claim 1, wherein said coating layer further contains one or more of a solid lubricant, extreme pressure agent and friction adjusting agent.

Ch 100
9. (Amended) A sliding bearing according to claim 2, wherein said roughened surface is formed by shot-blasting, etching, flame-spraying or chemical treatment.